

REMARKS

Claims 19-21 and 23-39 are pending.

By way of this Amendment, claim 19 is amended, claim 22 is canceled and new claims 37-39 have been added. The subject matter of claim 22 is incorporated into claim 19. Claims 25, 29 and 34, which were objected to as being otherwise allowable except for their dependency from a rejected claim, have been re-written as new independent claims 37-39, while also being retained with a dependency from amended claim 19. Thus, no new matter has been added. Entry of this Amendment and reconsideration of the rejection is respectfully requested in view of the Amendment and the following remarks.

On page 2 of the Office Action, the Examiner rejected claims 19-24, 26-28, 30-33, 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Cross, USPN 4,170,183 in view of Baltzinger, USPN 4,901,653. Applicant respectfully traverses this rejection.

The cited prior art documents only relate to the general state of the art. Cross discloses a plurality of grate blocks being arranged in each row of grate blocks. A first number of grate blocks arranged in a moveable row of grate blocks is assigned to a first grate carriage, and a second number of grate blocks arranged in a moveable row of grate blocks is assigned to a second grate carriage. The first grate carriage and the second grate carriage have mechanically coupled, oppositely directed drive arrangements and are moved cylindrically in counterphase.

The grate disclosed in Cross is a so-called longitudinal grate. The longitudinal grate is purely a conveying assembly and allows only uncontrolled transportation of the waste. Since the movement of the longitudinal tracks takes place over the entire length of the grate, the transporting speed and thus, the operating conditions cannot be regulated independently in each incineration zone.

Unlike the grate disclosed in Cross, the present invention provides a grate element which allows for a more intensive and continuous mixing and a controlled manner of conveying.

The grate element according to the present invention comprises a plurality of rows of grate blocks, arranged one behind the other. The rows of grate blocks are moveable or fixed in each row, such that a plurality of grate blocks is arranged as claimed. A first number of grate blocks arranged in a moveable row of grate blocks is assigned to a first grate carriage, and a second number of grate blocks arranged in a moveable row of grate blocks is assigned to a second grate carriage. Thus, the first number of grate blocks can be moved independently of the second number of grate blocks.

The independent movement according to the present invention leads to several important technical improvements as discussed in paragraphs [0011] to [0013] (or line 30 of page 3 to line 35 of page 4 of the filed disclosure) of the present disclosure:

- The independent movement capability gives rise to additional lateral

intermixing. Peaks and troughs of waste are thus produced on the grate and are moved forward and backward in an alternating manner. This results in the waste being mixed and raked both laterally and in the transporting direction.

- By virtue of the extremely good intermixing and conveying of waste, the incineration sequence can be better controlled since fewer deflagrations occur.
- By virtue of the continuous circulation, the waste only remains lying in the same location for the short period of time, which results in the grate blocks being subjected to less thermal stressing. The grate element according to the present invention is thus less susceptible to malfunctioning, has a long service life and guarantees cost-effective operation.
- Since the first number of grate blocks can be moved independently of the second number of grate blocks, different types of operation are possible. It is thus possible to adjust the movement pattern of the grate element in different ways depending on the type of waste.
- The surface area of the waste which to be incinerated is increased by the optimum circulation. The incineration process thus takes place more quickly and completely.

In the grate disclosed in Cross, the two grate carriages are not moved independently of each other. Baltzinger teaches a plurality of fixed or moveable row of grate blocks arranged

one behind the other, wherein each fixed row of grate blocks is followed by a moveable row of grate blocks.

Thus, a person skilled in the art cannot learn from Cross in view of Baltzinger that more intensive and continuous mixing and a controlled manner of conveying can be affected by virtue of a grate element according to the present invention, wherein the grate carriages can be moved independently.

Therefore, the teachings of Cross in view of Baltzinger do not meet the claimed limitations. In an effort to expedite prosecution, Applicant has amended independent claim 19 by incorporating the subject matter of claim 22. Applicant respectfully submits that the cited prior art does not teach, suggest, mention or give any reason (other than through improper hindsight) for combining Cross and Baltzinger in a manner suggested by the Examiner, so as to render obvious the invention covered by amended claim 19.

Therefore, Applicant respectfully requests withdrawal of the rejection of claims 19-21, 23, 24, 26-28, 30-33, 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Cross, USPN 4,170,183 in view of Baltzinger, USPN 4,901,653.

On page 4, the Examiner objected to claims 25, 29 and 34 as being dependent upon a rejected base claim, which would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Applicant thanks the

Examiner for the indication of allowable subject matter. Accordingly, former claims 25, 29 and 34 are now presented as independent claims 37-39.

Should the Examiner have any questions or comments regarding this matter, the undersigned may be contacted at the below-listed telephone number.

Respectfully submitted,
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